

Waste Management Plan for Group 3 PM-2A Tanks and Burn Pits for Test Area North, Waste Area Group 1, Operable Unit 1-10

May 2005

**Idaho
Cleanup
Project**

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INEEL/EXT-03-00284
Revision 3
Project No. 23095

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and Burn Pits for Test Area North,
Waste Area Group 1, Operable Unit 1-10**

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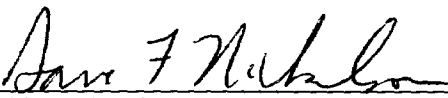
**Idaho Cleanup Project
Idaho Falls, Idaho 83415**

**Prepared for the
U.S. Department of Energy
Assistant Secretary for Environmental Management
Under DOE-NE Idaho Operations Office
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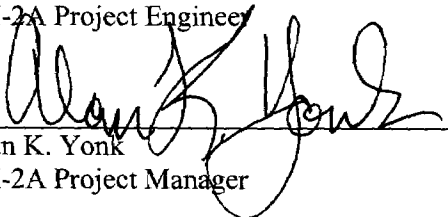
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5/10/05

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Date

Project No. 23095

REVISION RECORD

Revision Number	Description	Comments
0 December 2003	Original issue.	
1 June 2004	Revised to address removal of PM-2A tanks V-13 and V-14 and placement in the TAN-607 high-bay.	Agency concurrence obtained through review and comment on draft revision.
2 December 2004	Revised to address transport of PM-2A tank V-13 to ICDF for disposal and transport of tank V-14 to ICDF for treatment.	Agency concurrence obtained through review and comment on draft revision.
3 May 2005	Revised to address treatment and disposal of PM-2A tank V-14 at ICDF.	Agency concurrence obtained through review and comment on draft revision.

ABSTRACT

This waste management plan describes waste management and minimization activities associated with the remedial design/remedial action work plan for the Operable Unit 1-10 Group 3 site's remedial actions to be implemented at the Idaho National Engineering and Environmental Laboratory Site in accordance with the final record of decision for Test Area North, Operable Unit 1-10 and the 2004 and the 2005 explanation of significant differences. This Waste Management Plan has been revised to reflect changes that were made to the remediation strategy for the PM-2A tanks as outlined in the two explanation of significant differences documents. Revision 2 of this plan specifically addresses the Technical Support Facility (TSF- 26 PM-2A tanks for the transportation and placement of the tanks at ICDF. This revision, Revision 3, of this plan specifically addresses the PM-2A tanks Phase 2 remedial action revision for the treatment and disposal of the PM-2A V-14 tank at ICDF. Treatment and disposal at the ICDF is covered in Addendum 2 to the Group 3 Remedial Design/Remedial Action Work Plan.

This plan identifies the types and volumes (when possible) of waste that are anticipated to be generated during implementation of the remedial actions. Additionally, this plan addresses waste characterization strategies, and requirements for waste storage, packaging, labeling, and transportation to a designated disposal facility.

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ACRONYMS

AOC	area of contamination
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DOE	Department of Energy
DOT	Department of Transportation
EDF	engineering design file
EPA	Environmental Protection Agency
ESD	explanation of significant differences
FFA/CO	Federal Facility Agreement and Consent Order
FRG	final remediation goal
FSP	field sampling plan
HWMA	Hazardous Waste Management Act
ICDF	INEEL CERCLA disposal facility
INEEL	Idaho National Engineering and Environmental Laboratory
INL	Idaho National Laboratory
IW	industrial waste
IWTS	Integrated Waste Tracking System
LDR	land disposal restriction
LLW	low-level waste
LSA	low specific activity
MLLW	mixed low-level waste
OU	operable unit
PCB	polychlorinated biphenyl
PLN	plan

PPE	personal protective equipment
RCRA	Resource Conservation and Recovery Act
RD/RAWP	remedial design/remedial action work plan
RI/FS	remedial investigation/feasibility study
ROD	record of decision
RWMC	Radioactive Waste Management Complex
SSSTF	Staging, Storage, Sizing, and Treatment Facility
TAN	Test Area North
TSCA	Toxic Substances Control Act
TSD	treatment, storage, or disposal
TSF	Technical Support Facility
USC	U.S. Code
WAC	waste acceptance criteria
WAG	waste area group
WGS	Waste Generator Services
WMP	waste management plan
WRRTF	Water Reactor Research Test Facility
WSA	waste storage area
WTS	waste technical specialist

Waste Management Plan for Group 3 PM-2A Tanks and Burn Pits for Test Area North, Waste Area Group 1, Operable Unit 1-10

1. PURPOSE AND OBJECTIVES

This waste management plan (WMP) is designed to support the waste management and minimization activities associated with the remedial design/remedial action work plan (RD/RAWP) (DOE-ID 2003) developed for the Operable Unit (OU) 1-10, Group 3, Technical Support Facility (TSF)-26 PM-2A tanks and TSF-03 burn pit sites at the Test Area North (TAN) facility at the Idaho National Laboratory (INL), the RD/RAWP Addendum 1 (DOE/NE-ID 2004) implementing Phase 1, and the RD/RA WP Addendum 2 implementing Phase 2 of the revised remedial action for the TSF-26 PM-2A tanks site and treatment of tank V-14 (DOE/NE-ID, 2005a). The remediation activities are being performed in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S. Code [USC] 9601 et seq., 1980), the signed record of decision (ROD) for OU 1-10 (DOE-ID 1999), and the explanation of significant differences (ESD) for OU 1-10 (DOE-ID 2004a). The revised remedy for the PM-2A tanks includes removing the tanks with the waste inventory in place in the tanks, treating the waste inventory, if necessary, and disposing of the tanks as CERCLA remediation-derived waste at the INL CERCLA Disposal Facility (ICDF) or other approved facility. Remedial actions for the PM-2A tanks also include soil excavation, sampling, backfill, and site restoration. This WMP has been revised to reflect changes that were made to the remediation strategy for the PM-2A tanks and specifically addresses Phase 1 and 2 remedial actions, which include tank removal, site restoration, movement to the TAN-607A High Bay, transport from the High Bay to ICDF, disposal of Tank V-13 and contained waste at ICDF, and Tank V-14 waste treatment and disposal at the ICDF.

The selected remedy for TSF-03 includes excavating the burn pit materials, disposing of the materials appropriately, performing sampling, and backfilling the excavation with clean fill. The Water Reactor Research Test Facility (WRRTF)-01 is also part of Group 3, OU 1-10. The selected remedy for WRRTF-01 is the installation of a native soil cover over Pits II and IV, contouring of the cover to promote drainage, revegetation of the area, and placement of granite monuments at the corners of the cover. However, as the only waste anticipated to be generated during remediation of this site is industrial waste (IW) (see Section 3.4.5), WRRTF-01 is not discussed further in this plan.

This plan identifies the types and the volumes (when possible) of wastes that are anticipated to be generated during the remedial actions and a strategy for managing them in compliance with the applicable regulations. In addition, this plan addresses the waste characterization strategy; requirements for waste storage, labeling, and packaging and transportation, and treatment, if required; as well as designated facilities for ultimate disposal of the waste. The plan also identifies required records and reports, and discusses strategies for minimizing waste during remediation activities.

2. SITE BACKGROUND

The INL is a Department of Energy (DOE) facility located in southeastern Idaho, 51.5 km (32 mi) west of Idaho Falls, and encompasses approximately 2,305 km² (890 mi²) of the northeastern portion of the Eastern Snake River Plain. The TAN facility is an area approximately 41 ha (102 acres), located in the north-central portion of the INL (see Figure 2-1). The area includes four different facilities: (1) TAN/TSF, (2) the Initial Engine Test facility, (3) WRRTF, and (4) Specific Manufacturing Capability/Loss-of-Fluid Test facility. Since its construction in 1954, TAN has supported numerous research and testing projects, including development and testing of designs for nuclear-powered aircraft engines, reactor safety testing and behavior studies, armor manufacturing, nuclear inspections, and spent fuel storage operations.

In November 1989, because of confirmed contaminant releases to the environment, the Environmental Protection Agency (EPA) placed the INL on the National Priorities List of the National Oil and Hazardous Substances Contingency Plan (54 Federal Register 48184). In response to this listing, the DOE, EPA, and the Idaho Department of Environmental Quality (hereinafter referred to as the Agencies) negotiated the Federal Facility Agreement and Consent Order (FFA/CO) and Action Plan (DOE-ID 1991). The Agencies signed these documents in 1991, establishing the procedural framework and schedule for developing, prioritizing, implementing, and monitoring response actions at the INL in accordance with CERCLA (42 USC 9601 et seq., 1980), Resource Conservation and Recovery Act (RCRA) (42 USC 6901 et seq., 1980), and the Idaho Hazardous Waste Management Act (HWMA 1983).

To better manage cleanup activities, the INL was divided into 10 Waste Area Groups (WAGs). Test Area North, designated as WAG 1, includes fenced areas and immediate areas outside the fence lines at the TSF, Initial Engine Test, Loss-of-Fluid Test, Specific Manufacturing Capability, and WRRTF facilities (see Figure 2-2). The FFA/CO also established 10 OUs within WAG 1 consisting of 94 potential release sites. The sites include various types of pits, spills, ponds, aboveground and underground storage tanks, and a railroad turntable. Operable Unit 1-10 is listed as the WAG 1 comprehensive remedial investigation/feasibility study (RI/FS) in the FFA/CO. The purpose of the RI/FS, initiated in 1995, was to assess the investigations previously conducted for WAG 1, thoroughly investigate the sites not previously evaluated, and determine the overall risk posed by the WAG (DOE-ID 1997). The OU 1-10 RI/FS culminated with the finalization of the OU 1-10 ROD (DOE-ID 1999), which provides information to support remedial actions for eight sites where contaminants present an unacceptable risk to human health and the environment.

The TAN OU 1-10 TSF-26 site was subdivided for remediation purposes. Site TSF-26 surface soils, included in Group 1, are assumed to extend 10 ft below ground surface (bgs) above the PM-2A tanks. The remaining soil above the tanks, the tanks themselves, the cradles, and ancillary piping are considered the PM-2A tanks site within Group 3. Specifically, the PM-2A tanks site consisted of two abandoned 189,270-L (50,000-gal) carbon-steel underground storage tanks, their concrete cradles (containment troughs), feed piping, the waste contents of the tanks, and the contaminated soils associated with the tanks (see Figure 2-3).

The tanks, designated as V-13 and V-14, were installed in the mid-1950s to store low-level radioactive waste from the TAN evaporator and act as feed tanks for the PM-2A temporary evaporator until 1975. In the early 1980s the PM-2A evaporator was decontaminated and decommissioned. The tanks contained F001-listed, hazardous sludge and diatomaceous earth contaminated with volatile organic compounds and radionuclides. Residual liquids were also present in the V-14 tank (the west tank). The soil above and in the general area of the tanks was contaminated from occasional spills during routine operations (i.e., from leaks and spills during the removal and treatment of the liquid waste). No releases are known to have occurred from the tanks themselves.

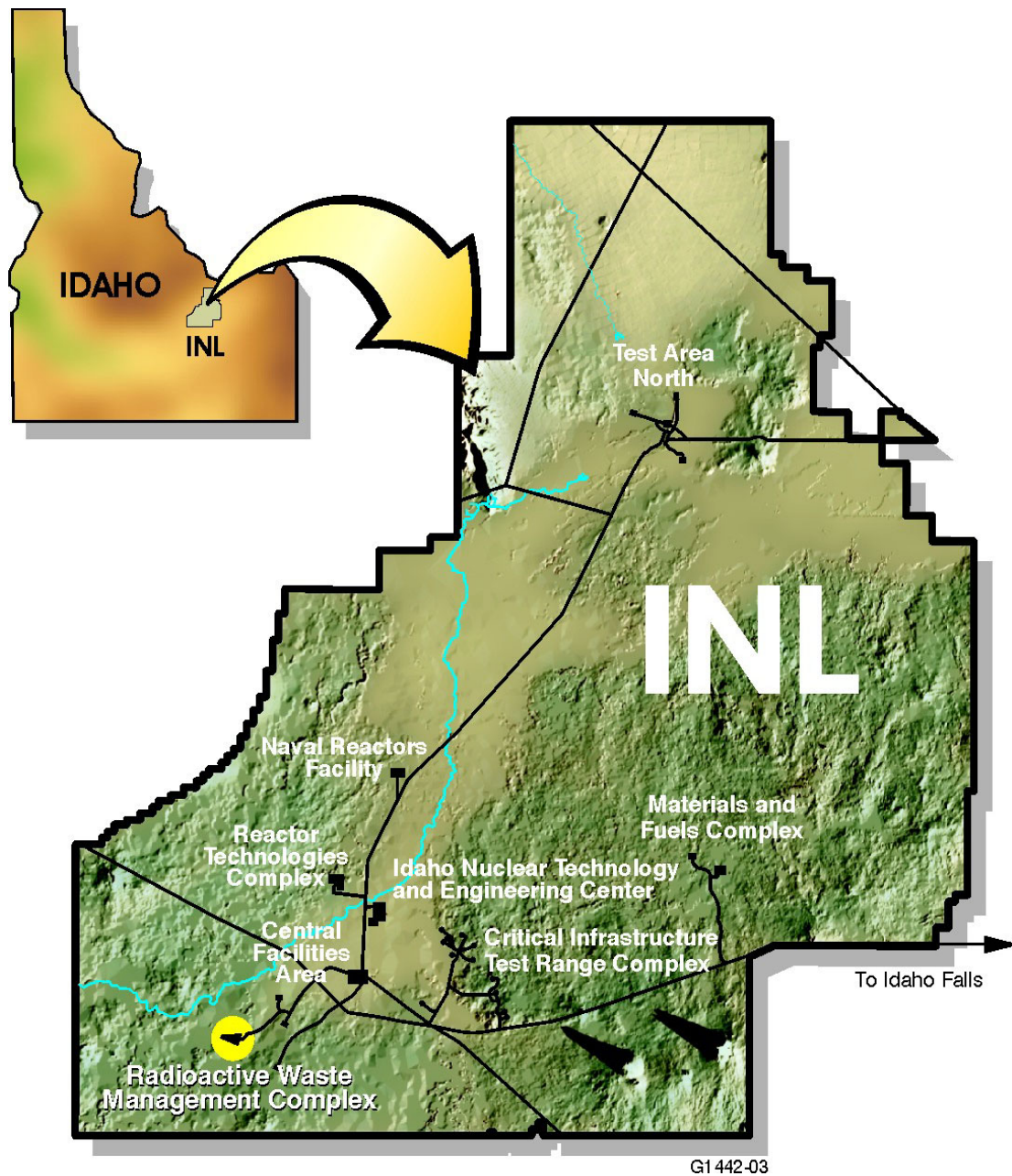


Figure 2-1. Location of the Idaho National Laboratory.

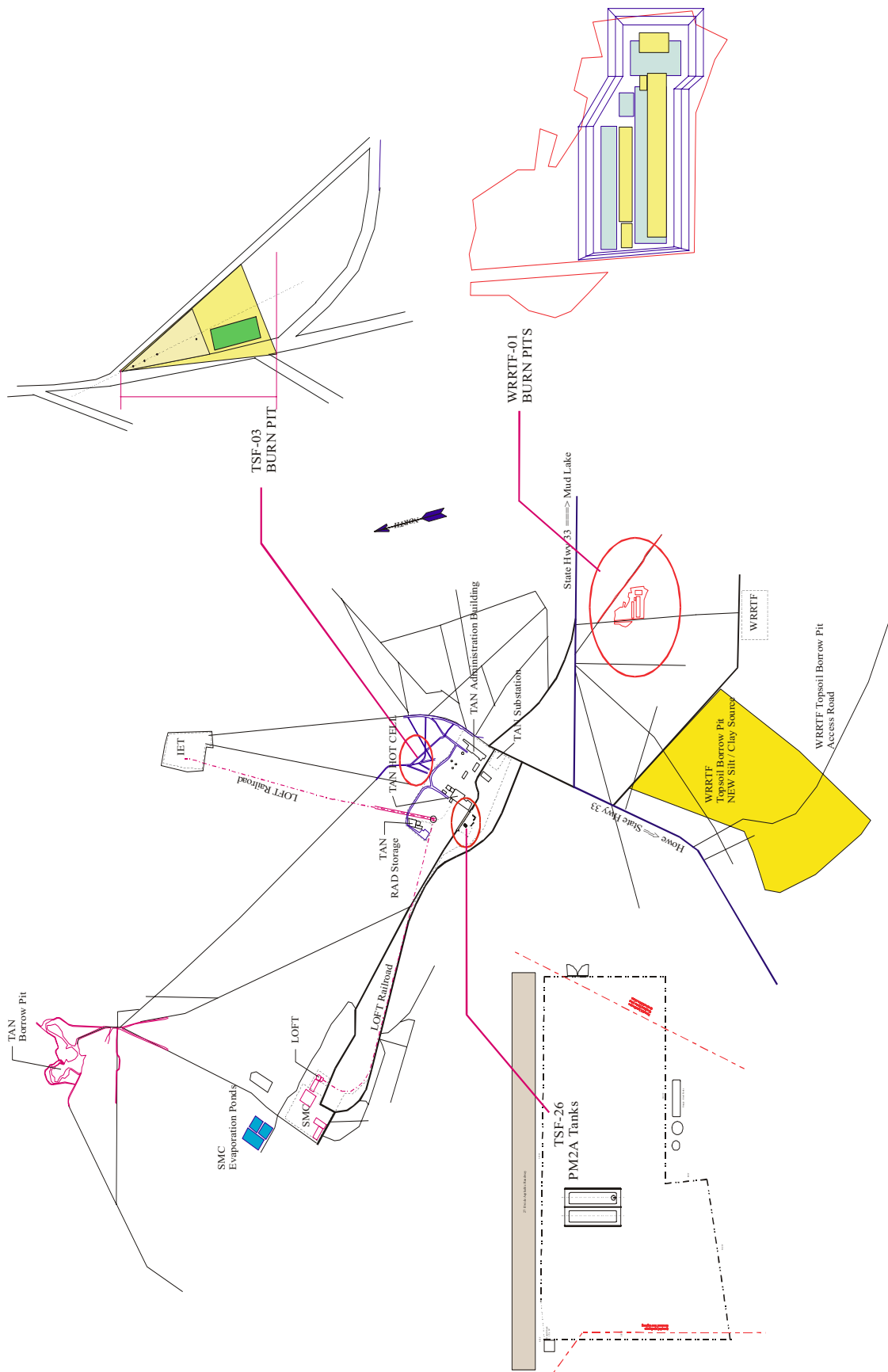
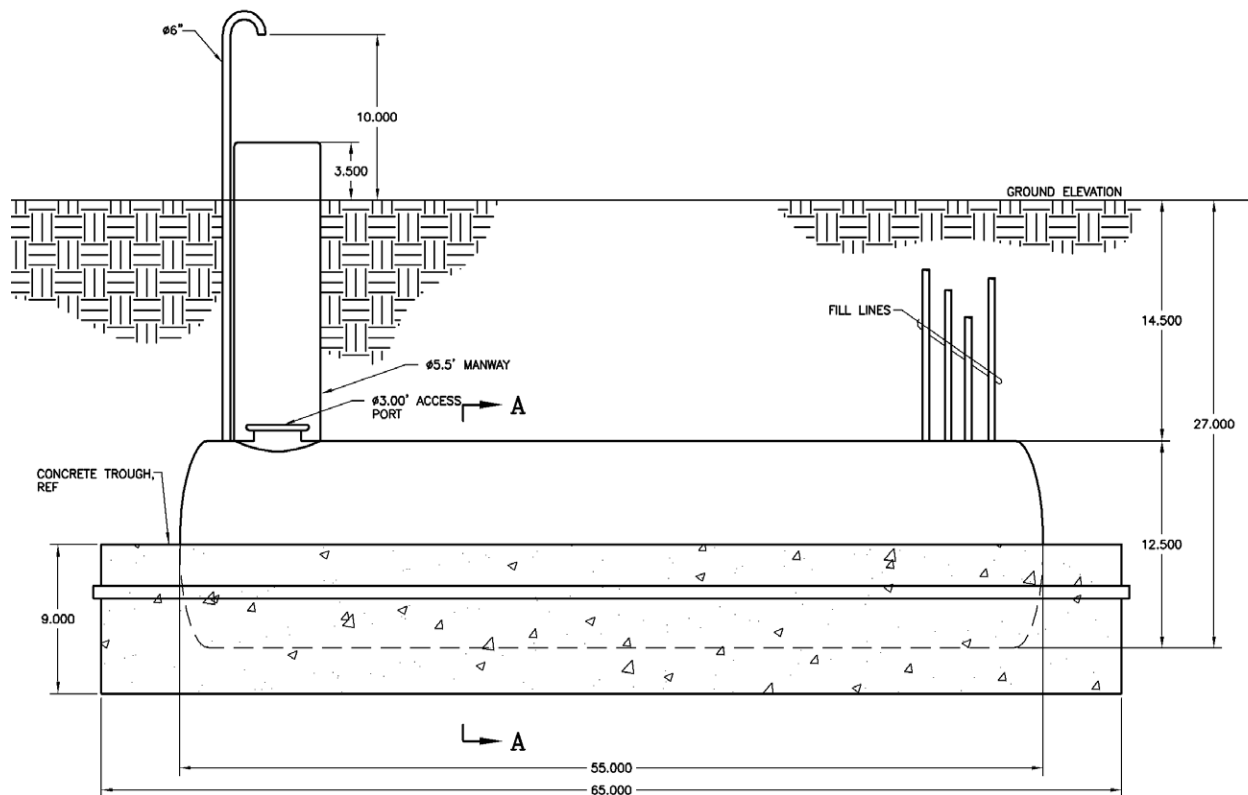
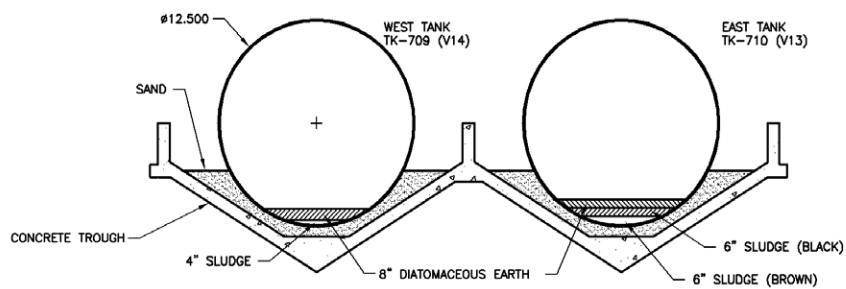


Figure 2-2. Waste Area Group 1, Test Area North facilities.



a. Elevation: Looking West at Tank 710



Note: The sludge layers were measured before the diatomaceous earth was deposited.

b. Section A-A: Looking North

Figure 2-3. PM-2A tanks configuration prior to removal.

The RD/RAWP Addendum 1 was prepared to address changes made to the original selected remedy, as documented in the ESD for the ROD (DOE-ID 2004a). Based on reevaluation of the remedial design for the PM-2A tanks and planning to support accelerated cleanup at TAN, a significant change to the remedy selected in the OU 1-10 ROD was identified. Specifically, rather than removing the waste inventory and treating as necessary, decontaminating the tanks and leaving the tanks in place, the tanks will be removed with the waste inventory in place in the tanks, the waste inventory treated, as necessary, and the tanks and the waste disposed of as CERCLA remediation-derived waste at the ICDF or other approved facility.

Implementation of the revised remedy for the PM-2A tanks will be conducted under two addenda to the Group 3 RD/RAWP. Addendum 1 addresses tank removal, site restoration, transport from the TAN-607A High Bay to the ICDF, and placement of the V-13 tank in ICDF Waste Cell 1 and the V-14 at the SSSTF for treatment (Phase 1). Addendum 2 addresses changes made to the original selected treatment remedy, as documented in the ESD for the ROD (DOE/NE-ID 2005) for treatment of the waste inventory in V-14 and to disposition of the waste and tank as CERCLA remediation-derived waste at the ICDF, waste treatment, and void space fill (Phase 2). See Figure 2-4 for the treatment location at ICDF.

While PM-2A Tank V-14 treatment and disposal will occur at ICDF, this waste management plan still addresses the Tank V-14 treated contents and associated secondary waste. And while Tank V-14 treatment will be implemented by ICDF operations, TAN WAG 1 retains responsibility for the waste management activities described in this waste management plan.

Site TSF-03, shown in Figure 2-2, consists of a pit used for open burning of construction debris and wastes generated from various areas at TAN. During the 1950s, the pit received refuse, construction debris, and combustible liquids that were burned each time materials were disposed in the pit. Although no records were kept of the types or volumes of waste disposed in the pit, process knowledge, limited historical information, and sampling activities indicate that Stoddard solvent, oily waste, glass, metallic objects, fiberglass, and charcoal may have been placed there. Use of the pit was discontinued in 1958 and it was eventually backfilled with clean soil and revegetated. Subsidence control has been maintained.

The ROD-selected remedy for TSF-03 was installation of a native soil cover, with excavation and disposal as the contingent remedy. During 2000 and 2001, this site was resampled, in accordance with a second site characterization effort stipulated in the OU 1-10 ROD, to identify and assess additional contaminants of potential concern that may be present in the soils. The results of this resampling effort indicate that lead levels in the TSF-03 burn pit exceed the EPA Region 9 screening level of 400 mg/kg. Therefore, excavation and disposal is preferred over a native soil cover to ensure that no contaminants are left in place that pose an unacceptable threat to human health and the environment and to alleviate the need for long-term maintenance or institutional controls. This decision is documented in the ESD to the ROD (DOE-ID 2004a).

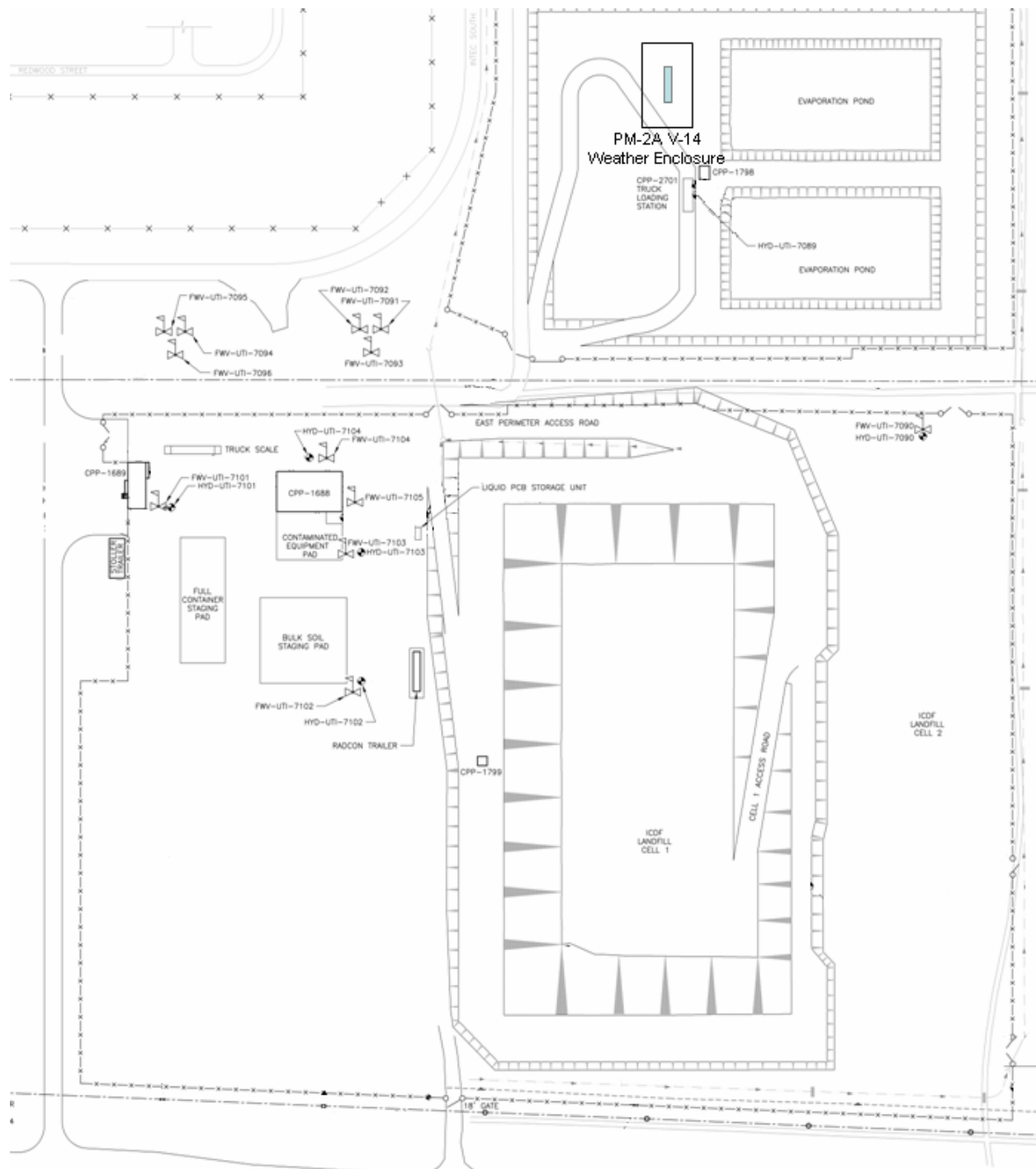


Figure 2-4. ICDF layout.

3. WASTE MANAGEMENT

3.1 Waste Stream Identification

A summary of the waste streams anticipated to be generated during the remediation of the PM-2A tanks (Phase 1 and Phase 2) and the TSF-03 burn pit are presented in Tables 3-1 and 3-2, respectively. The information provided in these tables includes the activities that will generate the waste, the waste types and applicable waste codes, estimated waste volumes, and the planned disposal options. These tables will be updated as necessary during the design process and/or if additional data or information become available for the sites.

If a new waste stream is identified during implementation of either remediation, that is not listed in Table 3-1 or 3-2 of this plan, it will be characterized either by using any and all available process knowledge to complete a material profile, or, in the absence of such information, the waste stream will be sampled and analyzed and a material profile developed, to ensure that it meets all requirements for (potential) treatment, storage, and disposal. The new waste stream will be documented in the field logbook, and noted by Waste Generator Services (WGS) personnel, and the project files for inclusion in the remedial action report following completion of that remedial action.

3.2 Minimization and Segregation

Wherever possible, waste minimization strategies will be employed during implementation of the remedies. Waste minimization for this project will be accomplished through design and planning to ensure efficient operations that will not generate unnecessary waste. As part of the pre-job briefing, emphasis will be placed on waste reduction philosophies and techniques, and personnel will be encouraged to continuously suggest or improve methods for minimizing waste generation.

The following design components are summarized from the RD/RAWP Addendum 1 for the PM-2A tanks (DOE/NE-ID 2004). Estimated waste volumes demonstrate specific waste minimization and waste segregation methods integral to the design for this remedial action, such as:

- All waste containers in the area of contamination (AOC) will be covered when not in use to prevent windblown contamination.
- Soil stockpiles staged will be covered with plastic when not in use to prevent the potential for windblown contamination.
- Water spray will be used to prevent the generation of airborne contamination during excavation activities. Conversely, the use of water spray during remediation activities will be monitored by designated field personnel to ensure that excessive water is not applied, thus minimizing the generation of liquid waste.
- Contaminated equipment will remain within the AOC during the remedial action. The traffic flow is designed to facilitate transfer of waste from equipment within contaminated areas to equipment staged in clean areas for transfer to the ICDF. This strategy will prevent contamination from being tracked to clean areas.

Table 3-1. Waste stream summary for the PM-2A tanks remedial action.

Remedial Action Activity	Waste Description	Expected Type and Applicable Waste Codes	Estimated Volume	Planned DOT Class Packaging*	Planned Storage Location	Planned Treatment/Disposal**
Tank Excavation	Soil	MLLW F001	4,000 yd ³	Metal drums/boxes or wooden waste boxes	CERCLA WSA	Assume waste meets LDRs; no treatment required—ICDF
Excavate soil/sand within the cradles	Soil/sand	MLLW F001	80 yd ³ cradle soil 40 yd ³ sand	Metal drums/boxes or wooden waste boxes	CERCLA WSA	Assume waste meets LDRs; no treatment required—ICDF
Remove cradles***	Sand	MLLW F001	40 yd ³	Metal drums/boxes or wooden waste boxes	CERCLA WSA	Assume waste meets LDRs; no treatment required—ICDF
	Concrete rubble	MLLW F001	300 yd ³ (assumes 2.5 packing factor)	Metal drums/boxes or wooden waste boxes	CERCLA WSA	Assume waste meets LDRs; no treatment required—ICDF
Remove liquids from waste lines	Liquid/sludge	MLLW F001	180 gal	Metal drums	CERCLA WSA	Treatment, as required, will be as part of the contents of V-14 and disposal to be conducted as part of Phase 2 remedial actions when tank V-14 and contents are sent to the ICDF landfill.
Remove and size associated waste lines; verify lines are empty	Empty piping	MLLW F001	39 ft ³	Metal drums/boxes or wooden waste boxes	CERCLA WSA	Assume waste meets LDRs; no treatment required—ICDF
Tank V-13 and contents disposal	Steel tank V-13 with contents	MLLW F001	TBD	Metal tank with contained sludge	CERCLA WSA	Waste meets LDRs, no treatment required - ICDF
General remedial activities	Miscellaneous debris	MLLW F001	TBD	Metal drums/boxes or wooden waste boxes	CERCLA WSA	Assume waste meets LDRs; no treatment required—ICDF
Equipment decontamination	Debris (e.g., tools, rags, brushes, etc.) Liquids	MLLW F001 MLLW F001	TBD TBD	Metal drums/boxes or wooden waste boxes Metal drums	CERCLA WSA CERCLA WSA	Assume waste meets LDRs; no treatment required—ICDF Assume waste meets LDRs; Absorb or solidify to meet ICDF WAC
Demobilization at TAN	Industrial waste and miscellaneous debris	None	TBD	TBD	TBD	Assume noncontaminated—CFA, RWMC, or TAN industrial landfill.
Disposition of Ancillary Equipment from TAN-607A High Bay	Plastic fire protection, concrete shield walls, steel floor planking	None	3500 ft ³	N/A	N/A	Assume noncontaminated—CFA Landfill. Some of this material may be reused, walls, planking, etc.

Table 3-1. (continued).

Remedial Action	Waste Description	Expected Type and Applicable Waste Codes	Estimated Volume	Planned DOT Class Packaging*	Planned Storage Location	Planned Treatment/Disposal**
Disposition of Ancillary Equipment from TAN-607A High Bay	Secondary containment plastic, wood pedestals	MLLW F001	1100 ft ³	Metal Drums/Boxes or Wooden Waste Boxes	CERCLA WSA if rad contaminated. N/A if not	If rad contaminated – ICDF If noncontaminated – CFA Landfill
Treatment and Disposal of V-14 at ICDF	Granulated Activated Carbon Filter material	MLLW F001	TBD	Metal Drums/Boxes	Offsite CERCLA WSA if rad contaminated. Offsite hazardous waste disposal area if not rad contaminated	Treat and dispose at offsite facility
Treatment and Disposal of V-14 at ICDF	Steel tank V-14 with contents	MLLW F001	TBD	Metal tank with treated contained sludge	CERCLA WSA	Assume waste meets LDRs after treatment - ICDF
V-14 treatment system operations dismantlement and demobilization at ICDF	Debris such as ancillary treatment equipment, secondary containment, piping, hoses, ductwork, valves, PPE, etc.	MLLW F001	TBD	Metal Drums/Boxes	CERCLA WSA	ICDF
Samples of V-13 and V-14 contents	Altered & unaltered sample residues	MLLW F001	TBD	Metal Drums	CERCLA WSA	ICDF
AOC CERCLA DOT ICDF IW LDR LSA MLLW PPE WSA	area of contamination Comprehensive Environmental Response, Compensation, and Liability Act Department of Transportation INL CERCLA Disposal Facility industrial waste land disposal restriction low specific activity mixed low-level waste personal protective equipment waste storage area.					

*The packaging determination is made from comparing the concentration data in Engineering Design File (EDF)-4453 with the packaging requirements of Plan (PLN)-120.

**Wastes that do not meet LDRs will be treated, as appropriate, or shipped off-site to another facility for treatment and disposal.

***Cradle removal will be required only if required under HWMA/RCRA closure based on waste releases to the material.

Table 3-2. Waste stream summary for TSF-03.

Remedial Action Activity	Waste Description	Location	Expected Type and Applicable Waste Codes	Estimated Volume	Planned DOT Class Packaging**	Storage Location	Planned Treatment/Disposal
Excavate burn pit area	Soil	TSF-03 AOC	LLW	804 yd ³	Class 7 LSA Soil bags in roll-off containers	CERCLA WSA	Assume waste meets LDRs; no treatment required—ICDF
Sample soil within the excavation	Debris (e.g., PPE, tools, rags, etc.)	TSF-03 AOC	LLW	192 ft ³	Class 7 LSA Metal drums/boxes or wooden waste boxes	CERCLA WSA	Assume waste meets LDRs; no treatment required—ICDF
Sample soil within the excavation	Decon water	TSF-03 AOC	LLW	32 gal	Class 7 LSA Metal drums	CERCLA WSA	Absorb/solidify free liquid; Assume waste meets LDRs; no treatment required—ICDF
Decontaminate excavation equipment	Debris (e.g., PPE, tools, rags, etc.)	TSF-03 AOC	LLW	354 ft ³	Class 7 LSA Metal drums	CERCLA WSA	Assume waste meets LDRs; no treatment required—ICDF
Decontaminate excavation equipment	Decon water	TSF-03 AOC (designated decon area)	LLW	250 gal	Class 7 LSA Metal drums	CERCLA WSA	Absorb/solidify free liquid; Assume waste meets LDRs; no treatment required—ICDF
*All remedial action activities	IW	TSF-03 AOC	IW				INL Landfill Complex
*All remedial action activities	LLW	TSF-03 AOC	LLW				RWMC
<p>AOC area of contamination</p> <p>CERCLA Comprehensive Environmental Response, Compensation, and Liability Act</p> <p>DOT Department of Transportation</p> <p>ICDF INL CERCLA Disposal Facility</p> <p>IW industrial waste</p> <p>LDR land disposal restriction</p> <p>LLW low-level waste</p> <p>LSA low specific activity</p> <p>Pb lead</p> <p>PCB polychlorinated biphenyl</p> <p>PPE personal protective equipment</p> <p>WSA waste storage area.</p> <p>*These waste types are included as placeholders in the event this type of waste streams are identified during remediation activities.</p> <p>**The packaging determination is made from comparing the currently available data for TSF-03 with the packaging requirements of PLN-120.</p>							

- Clean fill may be used to cover the entire site to mitigate the spread of contamination and minimize the waste inventory.
- The tank excavation area may be sprayed with a fixative to reduce the potential of airborne contamination due to high winds.
- Decontamination will be performed using dry methods, where possible, such as brushing, sweeping, and wiping.
- The tanks may be wrapped to prevent the potential spread of contamination during lifting and moving operations.

The following design components are summarized from the RD/RAWP Addendum 2 for the PM-2A tanks (DOE/NE-ID 2005a). Estimated waste volumes demonstrate specific waste minimization and waste segregation methods integral to the design for this remedial action, such as:

- Off gas demister will be used in off-gas system to prevent HEPA filter wetting and change out.

The following design components are summarized from the RD/RAWP for TSF-03 (DOE-ID 2003) and demonstrate specific waste minimization and waste segregation methods integral to the design for this remedial action. Figure 3-1 is provided for reference and indicates the location of specific work areas at TSF-03.

- Clean top soil will be stripped from the burn pit prior to commencing excavation of the burn pit material and stockpiled for use as clean backfill following completion of the remediation activities. Radiological field screening will be performed during excavation to aid in segregating clean soil from contaminated soil.
- The burn pit limits will be defined prior to commencing excavation activities by conducting “test excavations” in the areas believed to be the outer limits of the pit. This approach will minimize the excavation and possible contamination of clean soil surrounding the burn pit, which in turn, will minimize the volume of waste requiring disposal at the ICDF.
- Water spray will be used to prevent the generation of airborne contamination during excavation activities. Conversely, the use of water spray during remediation activities will be monitored by designated field personnel to ensure that excessive water is not applied, thus minimizing the generation of liquid waste.
- The objective of decontaminating the equipment or items used during the remedial actions is to remove any hazardous waste and to meet free-release criteria from a radiological controls standpoint (to facilitate releasing these items so they may be taken out of the radiological-controlled areas of the site for use in other activities). A graded approach will be used to decontaminate soil sampling equipment for both remedial actions in order to minimize decontamination waste. This approach is discussed in the project decontamination plan (INEEL 2004).

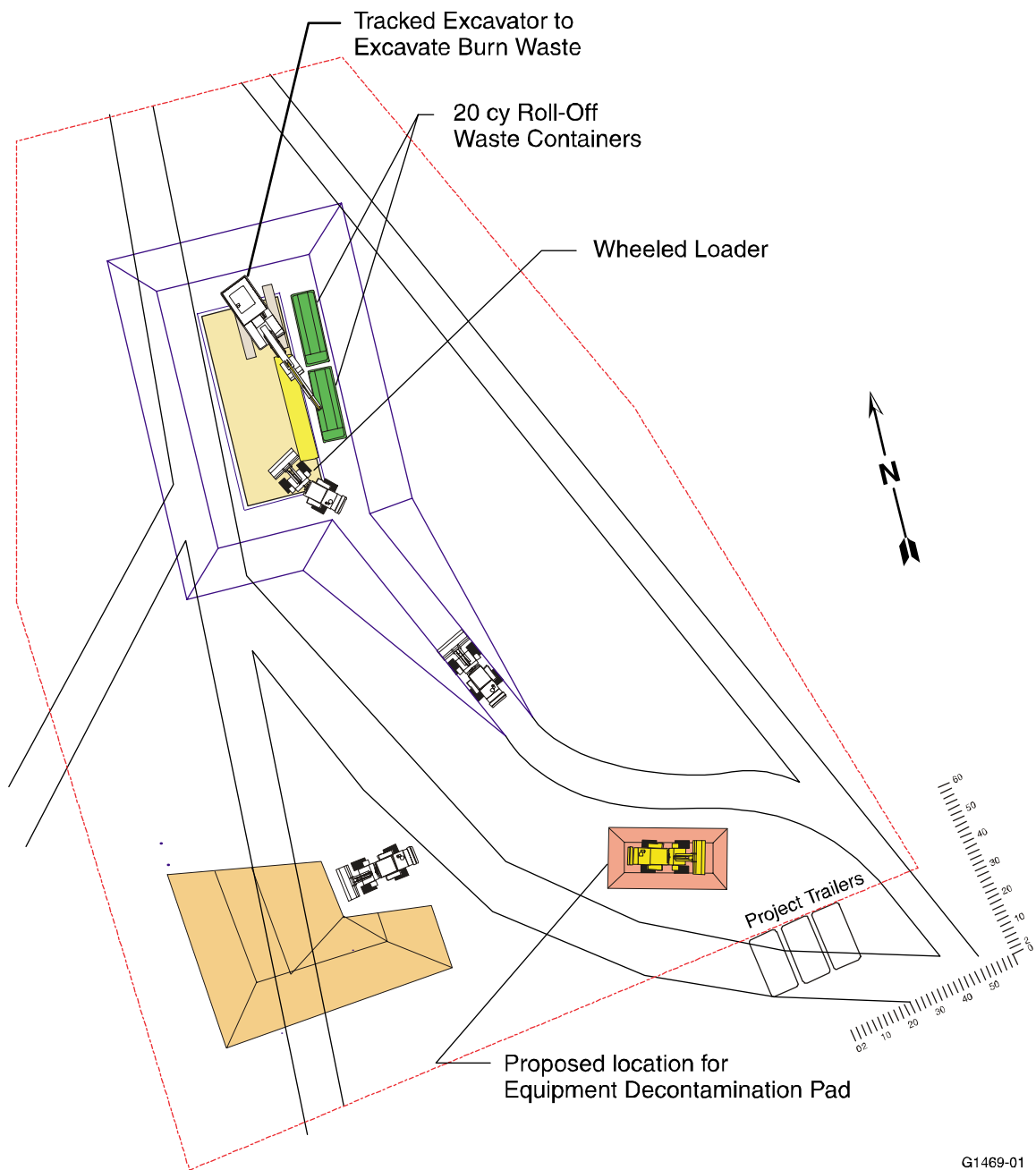


Figure 3-1. Location of specific work areas at TSF-03.

G1469-01

3.3 Waste Characterization Strategy

The implementation of the remedies for the PM-2A tanks and TSF-03 will generate CERCLA remediation waste. These wastes will be characterized to support associated hazardous waste determinations that will provide information for their subsequent management. Waste streams will be identified and characterized, and the land disposal restriction (LDR) status will be determined, thereby ensuring that all applicable or relevant and appropriate requirements are met before the waste is shipped for potential treatment, storage, and disposal (TSD). It is assumed for purposes of the PM-2A tanks and TSF-03 remedial designs that all waste generated, with the exception of wastes removed from the feed piping, will be accepted for disposal at the ICDF, although some treatment may be required to meet the ICDF WAC. Wastes removed from the feed piping will be treated, as necessary, and disposed as part of the Phase 2 remedial actions.

Waste managed in accordance with this WMP will be characterized by using approved sampling and analytical information, or by using process knowledge. When waste characterization is based solely on process knowledge it must be ensured that the chemical, physical, and radiological properties of the waste are adequately determined. The designation must be accomplished with sufficient accuracy to ensure that subsequent treatment, storage, or disposal of the waste is protective of human health and the environment. Approved sampling design and data quality are outlined in the field sampling plan (FSP) (DOE-ID 2004b).

In addition to the requirements of the ICDF WAC, all CERCLA remediation waste meeting the definition of debris defined in 40 Code of Federal Regulations (CFR) 268.2 will be characterized by applying knowledge of the waste constituents expected to be contaminating the debris. Only a fraction of the chemical and radiological constituents associated with the material known to have come in contact with the debris will be used to characterize the debris. For debris contaminated with material from the contents of the PM-2A tanks, the 90% upper confidence limit of the average radiological and chemical analytical data associated with the contents of the PM-2A tanks is the value to which the “debris contamination factor” will be applied to determine the fraction of contamination on the debris. For debris contaminated during the PM-2A tanks soil removal and soil sampling actions, the 90% upper confidence limit for the average radiological and chemical analytical data associated with the PM-2A tanks soil the debris came in contact with, is the value to which the contamination factor will be applied to determine the fraction of contamination on debris. The contamination factor will similarly be applied to debris that comes in contact with contaminated soil from the TSF-03 burn pit excavation activities. Application of the debris contamination factor will be in accordance with engineering design file (EDF), EDF-3570, “Waste Characterization Strategy for Contaminated Debris.”

3.4 INL Management and Disposition

The management and disposition of the waste streams described in this WMP are based on information from the RI/FS (DOE-ID 1997), the ROD (DOE-ID 1999), the RD/RAWP (DOE-ID 2003), the RD/RAWP addendum (DOE/NE-ID 2004), and other available data. Estimated volumes, initial characterizations, anticipated treatments (if any), and planned dispositions were developed and reviewed in the preparation of this WMP. A primary objective of this plan is to evaluate the appropriateness of management and disposal options for the anticipated waste. Appropriateness of a disposal option is based on whether a particular waste could reasonably be expected to cause or contribute to an environmentally significant release of hazardous substances from a selected facility. Releases of hazardous substances to the air or groundwater in quantities that could reasonably be expected to pose a significant threat to human health and the environment are considered environmentally significant. Any waste described in this WMP that would be reasonably expected to exceed this threshold criterion will be evaluated

separately to determine the suitability of the waste for disposal. Waste designated for disposal will not be shipped unless special provisions are made and documented to mitigate the potential for release.

Waste generated at the INL as a result of CERCLA remedial activities includes hazardous, mixed low-level waste (MLLW), low-level radioactive waste (LLW), and IW. These various types of waste may contain contaminants such as PCBs or asbestos that might be regulated by Toxic Substances Control Act (TSCA) (15 USC 2601 et seq., 1976) and the National Emissions Standards for Hazardous Air Pollutants (40 CFR 61). This waste may be disposed of at the INL, if it meets the specific facility's waste acceptance criteria, including the ICDF WAC. Most of the CERCLA-generated waste will be sent to the ICDF for disposal, although CERCLA-generated IW is typically disposed of at the INL Landfill Complex. The use of the Radioactive Waste Management Complex (RWMC) is an additional option for disposal of suitable CERCLA-generated LLW.

3.4.1 Waste Planned for Disposal at the INL CERCLA Disposal Facility

Most of the waste described in this plan is expected to be disposed of at the ICDF. This waste will be required to meet the current ICDF Waste Acceptance Criteria. Both hazardous and MLLW also must meet applicable RCRA LDRs.

3.4.2 Waste Transported to Non-INL Facilities

Some of the waste generated during CERCLA remedial activities may be sent to a TSD facility located outside INL boundaries. However, CERCLA hazardous or mixed waste that is sent outside INL Site boundaries for treatment, storage, or disposal may be sent only to a permitted or interim status TSD facility that has been found suitable to receive hazardous waste from CERCLA remediation sites by the TSD facility's own EPA regional office, in accordance with 40 CFR 300.440(a)(4).

3.4.3 Wastes Planned for Disposal at Non-CERCLA INL Facilities

The primary list of hazardous substances under CERCLA is contained in 40 CFR 302.4, "Designation, Reportable Quantities, and Notification, Designation of Hazardous Substances." As the remedial process proceeds and additional information regarding the waste becomes available, reviews that are more detailed will be conducted (as described below) to ensure that waste planned for specific disposal options meets the detailed waste acceptance criteria for each specific facility.

3.4.4 Managing Low-Level Waste for Disposal at the RWMC

The RWMC includes a LLW disposal unit that is operated by the DOE under the Atomic Energy Act, as amended (42 USC 2011 et seq., 1954). Operations of the LLW disposal facility at the RWMC are governed by DOE orders. Department of Energy Headquarters has determined that the RWMC LLW disposal facility complies with DOE orders and that the facility is authorized to operate. To ensure that the LLW sent to RWMC for disposal is appropriate and suitable for disposal at RWMC, the waste is evaluated by WGS to ensure that the waste will meet the RWMC WAC. The RWMC is not permitted by the EPA or licensed by the Nuclear Regulatory Commission to dispose of RCRA hazardous or mixed waste. To ensure hazardous or mixed waste is not sent to RWMC, a hazardous waste determination for each waste stream will be completed by WGS to ensure that the CERCLA LLW: (a) does not exhibit the characteristics of a hazardous waste and has not been in contact with a listed hazardous waste, or (b) that it has been analyzed to demonstrate that it no longer contains a hazardous waste above risk-based concerns. The hazardous waste determination will be based on process knowledge when sufficient process knowledge is available, when sufficient process knowledge is not available than analytical data

will be collected to make the hazardous waste determination. To help ensure that LLW is managed to protect human health and the environment, the RWMC employs the following methods:

- Characterization of CERCLA LLW by WGS to ensure that the requirements of the waste acceptance criteria are met before shipment to the RWMC
- Prohibiting the receipt of RCRA hazardous or mixed waste
- Prohibiting the receipt of free liquids at the facility
- Inspections of received waste to validate that the waste meets the waste acceptance criteria and is consistent with the waste profile
- Implementation of an environmental monitoring program at the RWMC.

3.4.5 Managing Industrial Waste for Disposal at the INL Landfill Complex

Industrial waste is solid waste that is neither radioactive nor hazardous. At the INL, IW streams are typically disposed of at the INL Landfill Complex. Many types of CERCLA IW are generated in the AOC as a result of material used in a remediation project that the generator believes has not been contaminated with either radioactive or hazardous materials. This absence of contamination is validated by radiation surveys or visual inspections. A general hazardous waste determination is prepared for routinely generated IW to document that the waste is neither radioactive nor hazardous. Industrial waste streams that have a higher probability of containing constituents restricted from disposal are considered nonroutine and will undergo a waste stream-specific hazardous waste determination. This determination is accomplished by sampling, performing radioactive surveys, using process knowledge of the waste-generating process (e.g., determining if the waste was mixed with a listed waste or derived from the treatment, storage, or disposal of a listed waste), and evaluating the composition of the IW. Waste Generator Services evaluates CERCLA IW to determine if the waste meets the IW acceptance criteria. Industrial waste is generally collected in IW collection dumpsters posted with signs describing acceptable and prohibited items. However, to ensure that disposal of IW is protective of human health and the environment, the INL Landfill Complex employs the following additional methods:

- Characterization of IW by WGS to ensure that the requirements of the waste acceptance criteria are met before shipment to the facility
- Prohibiting the receipt of radioactive and hazardous waste
- Prohibiting the receipt of free liquids at the landfill
- Inspecting received waste to validate that it meets the acceptance and waste determination criteria
- Periodic location and sampling of groundwater monitoring wells near the INL Landfill Complex.

3.4.6 Managing Industrial Waste in the TAN Demolition Landfill

CERCLA industrial waste generated at TAN may be disposed at the TAN Demolition Landfill if it meets the WAC for the landfill. Only nonradiological/nonhazardous construction and demolition waste will be accepted for disposal. Compliance with the WAC will be ensured by radiological surveys of the waste prior to shipment to the landfill, characterization of the waste by WGS to ensure that the requirements of the WAC are met before shipment to the facility, and finally, inspections of received

waste to validate that it meets the acceptance criteria. All these checks together ensure that there will not be an environmentally significant release of hazardous substance to the environment.

3.4.7 Waste Packaging and Transportation

Before CERCLA waste is transported to a disposal facility, WGS and packaging and transportation personnel will be contacted to ensure that the waste is properly containerized, marked, and labeled and meets the disposal facility WAC. All sampling and transportation will occur in compliance with the applicable transportation regulations as specified in Plan (PLN)-120, "Hazardous Material Packaging and Transportation Quality Implementation Plan." Contact with the disposal facility must be made in advance to allow both the facility and the shipper the time required to make any preliminary arrangements. A separate transportation plan (PLN-1787) has been prepared to govern the PM-2A tanks transport to ICDF.

3.4.8 Managing Waste Information

Information pertaining to waste characterization, waste generation and storage locations, disposition plans, and waste shipments for CERCLA MLLW, CERCLA LLW, and nonroutine CERCLA IW generated at the INL is maintained in an electronic database called the Integrated Waste Tracking System (IWTS). Material profiles are developed by IWTS to provide characterization information that is specific to a particular waste stream. As the waste is generated, information pertaining to individual containers of waste is reported in individual IWTS container profiles.

The information in the IWTS material profiles and container profiles is certified by a WGS waste technical specialist (WTS), who certifies that a hazardous waste determination has been performed and that the information is complete and accurate based on the analytical data or process knowledge used for characterization. The WTS also certifies that the information for the container falls within the bounds of the parent material profile. A different WGS WTS follows with an independent review of the information for completeness and accuracy. Finally, the information in the material and container profiles is approved by a WGS WTS who authorizes WGS to dispose of the waste in accordance with the disposition path defined in the IWTS material profile, and authorizes that the waste meets the acceptance criteria of the facility or facilities where the waste will be disposed of. This approval must not be performed by the WTS performing the review.

Waste technical specialists use the information in the IWTS material and container profiles to ensure that CERCLA waste meets the acceptance criteria of the receiving facility. The IWTS also tracks shipments of waste to various facilities using specific IWTS shipping tasks. All receiving facilities, including those located outside the boundaries of the INL, must approve waste shipments before they are shipped. This approval is not documented in the IWTS database, but is maintained in a hard copy file with the waste characterization information.

It should be noted that not all CERCLA IW is tracked in the IWTS database. An example of IW that is not tracked in the IWTS is routine office waste. This waste is placed into IW receptacles that are placarded with permissible content information. Some IW is tracked in the IWTS database to ensure that the INL Landfill Complex is aware that the waste is being shipped and that it meets the facility's acceptance criteria. An example of IW that is tracked in the IWTS is color-coded material such as yellow shoe covers. Since yellow shoe covers are typically used for protection against radioactive contamination, a special profile has been prepared for color-coded personal protective equipment that has been surveyed and found not to be contaminated with radioactivity, or that has been used for training purposes. Another example is containers that have had all contents removed and are not radiologically contaminated.

Container profiles are typically not prepared for IW because the waste is shipped to the facility in reusable receptacles, in bulk shipments, or is not containerized.

There will be MLLW and possibly TSCA PCB waste generated at physical interfaces between Voluntary Consent Order- and CERCLA-managed programs. The MLLW and/or TSCA PCB waste generated to support CERCLA remediation activities will be managed as CERCLA remediation waste (as detailed in this WMP), and in accordance with the ROD and the ESD (DOE-ID 1999, 2004a). The MLLW and/or TSCA waste generated to support Voluntary Consent Order activities will be managed in accordance with applicable RCRA and/or TSCA regulations.

3.4.9 Storage, Inspection, and Recordkeeping

Storage, inspection, and recordkeeping will be performed according to the applicable, relevant, and appropriate requirements identified in the ROD and the ESD (DOE-ID 1999, 2004a). A sample checklist for the WSA is attached as Appendix A. Waste generated from this remediation project may be transported to INL TSD facilities that are appropriate to each specific waste type. Mixed low-level waste and TSCA waste will only be managed in facilities approved for the specific waste type.

3.4.10 Managing Waste in the Area of Contamination

Work within the AOC includes soil excavation and removal, tank removal, and soil sampling. For waste management purposes, the AOC is defined as the area of contiguous contamination surrounding the PM-2A tanks and the TSF-03 burn pits. This area is delineated by the presence of radioactive or hazardous contamination resulting from system operations. Waste generated as part of this remediation effort may be managed within the AOC or at other appropriate waste management facilities. Hazardous waste that is generated during remediation activities, and that leaves the AOC, will be required to meet land disposal restriction standards before disposal.

3.4.11 Management of Excavated Soils during Remedial Activities

3.4.11.1 *Excavation of Contaminated Soils to Support other Remediation Activities.*

Where contaminated soils are disturbed solely to facilitate other planned remediation activities, where those soils will be managed in an area near or adjacent to the point of excavation, and where those soils are to be returned to the point of excavation, those soils shall be managed according to the following guidelines:

- Soils shall be managed as close as practical to the point of excavation
- Soil piles shall be covered to prevent windblown or precipitation-enhanced dispersal of contamination whenever there is a planned cessation of active work at that site (i.e., overnight)
- Soil piles shall be returned to the excavation as soon as practical
- If the decision is made to treat, store, or dispose of this soil at a different location, these soils or soil piles will then be subject to the requirements for contaminated soils planned for treatment, storage, or disposal in the next subsection.

3.4.11.2 *Contaminated Soils Planned for Treatment, Storage, or Disposal.* Soils that are excavated that are planned for treatment, storage, or disposal at another location shall be expeditiously placed in trucks or other transportation containers for transport. When transport is not expeditiously available after excavation, contaminated soils shall be placed in staging piles to be appropriately managed

until transport is available. These staging piles will be established as registered CERCLA WSAs and inspected weekly to ensure the piles are managed in compliance with the standards and requirements contained within this section of the WMP pertaining to staging piles. A sample checklist for weekly staging pile inspection is provided in Appendix A.

Staging piles will be managed in accordance with applicable or relevant and appropriate requirements of 40 CFR 264.554. The requirements below provide the Agencies the opportunity to review, comment, and concur with the management of soils under this approach. The Agencies concurrence with this WMP is the CERCLA equivalent of the director's designation of the standards and design criteria that would be required to operate RCRA staging piles if this project was regulated under RCRA requirements. Placing hazardous remediation wastes into a staging pile does not constitute land disposal of hazardous wastes or create a unit that is subject to the minimum technological requirements of RCRA 3004(o) (Pub. L. No. 94-550).

The management of contaminated soils in staging piles requires compliance with the following requirements:

- Contaminated soils shall be stockpiled in staging piles located near or adjacent to the area of excavation.
- Only solid, non-flowing remediation waste (i.e., soils) that would meet the definition of remediation waste in 40 CFR 260.10 shall be included in the staging pile. It is expected that the overall physical and chemical characteristics of the soils to be placed in these staging piles will generally be indistinguishable from the surrounding soils by visual examination. The primary difference will be the presence of radionuclides or hazardous constituents that would preclude release of the site for unrestricted use. The volumes of these soils addressed in this plan will be projected in the tables in Section 3.
- Treatment of waste in these staging piles is not allowed.
- Staging piles will be used expressly for the purpose of facilitating an effective remedial action.
- Staging piles shall be covered or have stabilization agents applied whenever active remedial activities are not underway (e.g., when active movement of soils either into or out of the pile are not proceeding during normal operational periods) in order to reduce wind-blown or precipitation-enhanced releases of contamination.
- Access to the remediation areas and the staging piles will be restricted by the use of signs and fences, as appropriate to restrict access to the area of contamination and remediation site until remediation has been completed and confirmed.
- Ignitable and/or reactive soil cannot be stored in a staging pile unless the waste has been treated and is no longer ignitable or reactive.
- The staging piles must be established and maintained to ensure separation of incompatible soil and other waste.
- Upon completion of other remediation activities at the CERCLA sites, all remaining contaminated soils, including the staging piles and any soils that were contaminated as a result of the staging pile, must also be removed and disposed at an approved disposal facility in order to complete remediation activities. The area that was beneath the staging pile is subject to the same

confirmation sampling as specified in the FSP (DOE-ID 2004b) to ensure that the contaminated soils have been effectively removed.

- All contaminated structures and/or equipment associated with the staging piles will be removed, disposed, or decontaminated for reuse.
- Staging piles must be completely removed by the end of the field season immediately following the field season in which the staging pile was created unless specific approval for an extension is obtained from the Agencies (typically limited to one additional year).

3.4.11.3 Remediation of Contaminated Soils and Potential for Return to Excavation.

The following approach applies to just the TAN OU 1-10 project and is only appropriate when the sole final remediation goal (FRG) for a remediation project is based on Cs-137 (i.e., remove contaminated soils to less than 23.3 pCi/g in the upper 10 ft of soil). In order to meet this FRG, soils above 23.3 pCi/g Cs-137 in the top 10 ft will be excavated. Additional soils may be excavated to support removal of tanks, piping, or buildings. Additional soils may be excavated at the discretion of the project manager (e.g., so as to reduce the need for institutional controls). Removal of large quantities of additional soils requires approval by the WAG manager and concurrence of the Agencies. Large quantities are defined as those that would entail multi-day extension of the excavation project.

Excavated soils may be used for backfill only to the extent that they do not drive further remediation or extend the need for Institutional Controls either in time or in areal extent. Different rules will apply for the backfilling of subsurface soils (excavated volume below 10 ft beneath ground surface) and surface soils (within 10 ft of the ground surface). Guidance for returning contaminated soils to the excavation is graphically shown in Table 3-3 and explained by the following:

1. Clean soil (less than 2.3 pCi/g) can always be brought in for any areas requiring backfill.
2. If, after remediation, both the surface soils and subsurface soils have been remediated to less than 2.3 pCi/g, then only backfill soils with less than 2.3 pCi/g of Cs-137 can be used for that backfill.
3. If, after remediation, the surface soils are less than 2.3 pCi/g Cs-137, but the subsurface soils remain contaminated with Cs-137 between 2.3 and 23.3 pCi/g, then the subsurface volume can be backfilled with soils up to 23.3 pCi/g of Cs-137. The surface soil excavated area must be backfilled with soils less than 2.3 pCi/g of Cs-137.
4. If, after remediation, the surface soils are less than 2.3 pCi/g Cs-137, but the subsurface soils remain contaminated with Cs-137 greater than 23.3 pCi/g, then the subsurface volume can be backfilled with soils up to the same concentration left in place in the subsurface soils. The surface soil excavated area must be backfilled with soils less than 2.3 pCi/g of Cs-137.
5. If, after remediation, the surface soils are between 2.3 and 23.3 pCi/g Cs-137, but the subsurface soils show Cs-137 contamination less than 2.3 pCi/g, then both the subsurface and surface soils can be backfilled with soils at the same concentration as the soils left in place.
6. If, after remediation, both the surface and subsurface soils are between 2.3 and 23.3 pCi/g Cs-137, then both of these areas can be backfilled with soils at the same concentration as those left in place.
7. If, after remediation, the surface soils are between 2.3 and 23.3 pCi/g Cs-137, but the subsurface soils remain contaminated with Cs-137 above 23.3 pCi/g Cs-137, then the subsurface backfill

volume can be backfilled with soils up to the concentration of the soils remaining in the subsurface. The surface soil excavated area will be backfilled with soils less than 23.3 pCi/g of Cs-137.

NOTE: *The cases most likely to be encountered are Items 6 and 7.*

After completion of excavation and removal of other contaminated items, confirmation sampling shall be conducted of the excavated area to confirm that removal activities are complete. This confirmation sampling to determine the 95% UCL estimate of the population mean concentration (based upon an approved FSP) shall be used to establish the guidelines for use of Table 3-3.

Similar sampling (specified in the approved FSP) utilizing the same equipment shall be used to document the Cs-137 concentration in soil piles that may be potentially used for backfill. Sampling strategies may be based upon random core sampling of soil piles or large area surveys both with associated puck analysis to determine the 95% UCL on the mean for use in Table 3-3.

Further FRGs may be developed as a result of sampling for the presence of tank constituents remaining after tank, piping, or building removal. Should further FRGs be identified, this strategy may or may not be appropriate. The identification of further FRGs will require additional review.

Table 3-3. Use of contaminated soils for backfill.

After Remediation		Surface Soils (0–10 ft) remediated to:	
		<2.3 pCi/g Cs-137	> 2.3 but <23.3 pCi/g Cs-137
Subsurface Soils (Soils >10 ft bgs) Contamination left in excavation	<2.3 pCi/g Cs-137	b1) Backfill 0–10 ft Clean soil <2.3 pCi/g Cs-137	e1) Backfill 0–10 ft Soil <23.3 pCi/g Cs-137
		b2) Backfill below 10 ft Clean soil <2.3 pCi/g Cs-137	e2) Backfill below 10 ft Soil <23.3 pCi/g Cs-137
	>2.3 but <23.3 pCi/g Cs-137	c1) Backfill 0–10 ft Clean soil <2.3 pCi/g Cs-137	f1) Backfill 0–10 ft Soil <23.3 pCi/g Cs-137
		c2) Backfill below 10 ft Soil <23.3 pCi/g Cs-137	f2) Backfill below 10 ft Soil <23.3 pCi/g Cs-137
	> 23.3 pCi/g Cs-137	d1) Backfill 0–10 ft Clean soil <2.3 pCi/g Cs-137	g1) Backfill 0–10 ft Soil <23.3 pCi/g Cs-137
		d2) Backfill below 10 ft Soil up to conc. left in place	g2) Backfill below 10 ft Soil up to conc. left in place

4. REFERENCES

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- 40 CFR 260.10, 2003, “Definitions,” *Code of Federal Regulations*, Office of the Federal Register, July 1, 2003.
- 40 CFR 264.554, 2003, “Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities,” *Code of Federal Regulations*, Office of the Federal Register, July 1, 2003.
- 40 CFR 268.2, 2003, “Definitions Applicable in this Part,” *Code of Federal Regulations*, Office of the Federal Register, July 1, 2003.
- 40 CFR 300.440, 2003, “Procedures for Planning and Implementing Off-Site Response Actions,” *Code of Federal Regulations*, Office of the Federal Register, July 1, 2003.
- 40 CFR 302.4, 2003, “Designation of Hazardous Substances,” *Code of Federal Regulations*, Office of the Federal Register, July 1, 2003.
- 42 USC 2011 et seq., 1954, “Atomic Energy Act of 1954,” as amended.
- 42 USC 6901 et seq., 1976, “Resource Conservation and Recovery Act of 1976,” as amended.
- 42 USC 9601 et seq., 1980, “Comprehensive Environmental Response, Compensation, and Liability Act of 1980,” as amended. (NOTE: The 1986 amendment is cited as “Superfund Amendments and Reauthorization Act of 1986” [SARA].)
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Appendix A

Comprehensive Environmental Response, Compensation, and Liability Act Soil Staging Pile Area Checklist and Deficiency Resolution Tracking Table

Comprehensive Environmental Response, Compensation, and Liability Act Soil Staging Pile Area Checklist and Deficiency Resolution Tracking Table

The sample checklist and deficiency resolution tracking table contained in this appendix are provided for information purposes only. The checklist along with the deficiency resolution tracking table are expected to be modified as appropriate in order to effectively manage soils in a staging area under this plan.

CERCLA Storage Area Inspection Checklist

Registration Number: TBA

	Yes	No	N/A	
1				Is there Waste in the Area? IF "NO", Inspection is complete, sign and date below
2				Is an up-to-date copy of the registration form posted at the area?
3				Is the housekeeping in the area adequate?
4				Do quantities recorded in the logbook approximately equate to the quantities stored in the area?
5				Are waste types and quantities in accordance with those specified in the Appendix L?
6				Is the Emergency and Communications Equipment present as listed in the Appendix L?
7				Is the surface of the staging pile covered in such a manner as to reduce the potential for windblown erosion of the staging pile? (Coverage may be by tarp, fixative, or similar cover.)
8				Is there evidence of erosion channels or windblown material being released from the area since the last inspection?
9				If "Yes" to question 9, has the spill or release been reported to the Emergency Coordinator listed in the Appendix L?
10				If "Yes" to 9, has the spill or release been remediated and the spill and remediation documented on this checklist?
11				Have previously identified deficiencies undergone resolution? Indicate status on back of inspection form.

CERTIFICATION OF INSPECTION

I certify that all of the above applicable items have been inspected.

Date _____ Time _____

Name (print) _____ Inspector Signature _____

Deficiency Resolution Tracking Table

For each “No” answer identified on the inspection checklist, note the item number and describe the nature of the deficiency in the table. Each week, indicate the status of previously identified deficiencies that have not yet been resolved.

[illegible]

This checklist must be maintained at the facility for the current inspection year and 5 years hence.

Comprehensive Environmental Response, Compensation, and Liability Act Storage Area Inspection Checklist (Sample)

Registration Number

YES NO N/A

1. ____ Is there waste in the area? IF "NO," inspection is complete, sign and date below.
2. ____ Is an up-to-date copy of the registration form posted at the area?
3. ____ Are "**NO SMOKING**" signs posted in the area if storing RCRA ignitable or reactive waste?
4. ____ Are all waste containers labeled with the words "CERCLA WASTE" and an IWTS barcode?
5. ____ Are all non-waste items stored in the area appropriately marked or labeled for identification?
6. ____ Is the housekeeping in the area adequate?
7. ____ Is there adequate aisle space for personnel and equipment to respond to emergencies?
8. ____ Are all waste containers closed except when adding or removing waste?
9. ____ Is each waste container compatible with the waste stored in it?
10. ____ Are all waste types segregated within the area to maintain requirements for compatibility?
11. ____ Do quantities recorded in the logbook equal quantities stored in the area?
12. ____ Are waste types and quantities in accordance with those specified in the Appendix L of the INEEL Emergency Plan/RCRA Contingency Plan?
13. ____ Is the Emergency and Communications Equipment present as listed in the Appendix L of the INEEL Emergency Plan/RCRA Contingency Plan?
14. ____ Are there, or have there been, any releases or spills in the area since the last inspection?

15. ____ ____ ____ If "Yes" to Question 14, has the spill or release been reported to the emergency coordinator listed in the Appendix L of the INEEL Emergency Plan/RCRA Contingency Plan?
16. ____ ____ ____ If "Yes" to Question 14, has the spill or release been remediated and the spill and remediation documented on this checklist?
17. ____ ____ ____ Are all containers and/or PCB items in good condition with no leakage or signs of deterioration?
18. ____ ____ ____ Is PCB containment volume equal to 2 times the internal volume of the largest PCB article or PCB container, or 25% of the total internal volume of all PCB articles or containers, whichever is greater?
19. ____ ____ ____ Is the entrance to PCB storage marked with a large PCB M_L mark? (40 CFR 761.45)?
20. ____ ____ ____ Is each PCB item or container marked with a PCB M_L or M_S mark?
21. ____ ____ ____ Are items marked with an out-of-service date?
22. ____ ____ ____ Have previously identified deficiencies undergone resolution? Indicate status on back of inspection form.

CERTIFICATION OF INSPECTION

I certify that all of the above applicable items have been inspected. Date _____ Time _____

Name (print) _____ Inspector

Signature _____

Deficiency Resolution Tracking Table (Sample)

For each “No” answer identified on the inspection checklist, note the item number and describe the nature of the deficiency in the table. A “Yes” answer to Question No. 14 would indicate a spill and should be logged as a deficiency. Each week, indicate the status of previously identified deficiencies that have not yet been resolved.

[illegible]

This checklist must be maintained at the facility for the current inspection year and 5 years hence.